

Application Serial No. 09/994,283
Reply to office action of July 19, 2005

PATENT
Docket: CU-2732

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-5 are pending in the present application before this amendment. In this response, no claim amendment has been made, and no new matter has been added.

In the office action, claims 1-2 stand rejected under 35 U.S.C. §102(b) as being anticipated by a Japanese Reference No. JP 10-268356 (Takebayashi). Claims 3-5 also stand rejected under 35 U.S.C. §102(b) as being anticipated by Takebayashi.

The presently claimed invention is directed to, inter alia, (1) forming a common electrode on an entire surface of a color filter substrate, (2) forming post spacer on a display area (=active area), (3) forming a dot transfer in a pad area of array substrate, and (4) being connected electrically the common electrode of the color filter substrate with a pad of the array substrate by the dot transfer when mentioned substrates are joined. That is, the presently claimed invention is the construction removing the dot transfer by a transformation forming process of the common electrode and post spacer of the color filter substrate.

In other words, the presently claimed invention forms a post spacer to dispose in a position corresponding to a pad region of an array substrate as well as in the active area of the color filter substrate, and then forms the common electrode (= ITO) on the entire surface of color filter substrate. Then, the substrates are joined, thereby electrically connecting a pad of the array substrate and the common electrode on the post space without the transfer.

Accordingly, the presently claimed invention provides simplification of process by

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removing forming process of the transfer and minimizes a signal delay of the common electrode at the color filter substrate by making an electrical connection on more places than that by the dot transfer, thereby reducing crosstalk by the signal delay.

Additionally, according to the presently claimed invention, the post spacer formed in the active area is to be formed in a black matrix formation region, that is, a region, which does not contact the pixel electrode. Therefore, even when misalignment occurs, electrical connection cannot be made because there is an alignment layer.

In the cited Takebayashi reference, FIGS. 1 and 3 illustrate each pixel in an active area, and FIGS. 2 and 5 show the cross sectional view of FIGS. 1 and 3 (along A-A) respectively. In these drawings and the corresponding description, Takebayashi clearly teaches and suggests that the spacer 25 be placed only in the active area, which is very different from the presently claimed invention.

For reference, the common line in the array substrate is electrically connected to the common electrode of the color filter substrate. The common line in the pad area (=outside of the active area) of the array substrate is connected to the common electrode of the color filter substrate through a contact hole formed to expose the pad.

In the present case, the auxiliary capacitance electrode forming auxiliary capacitance with a pixel electrode in the active area of the array substrate is formed, and the auxiliary capacitance electrode has a insulating layer interposed between with the pixel electrode in the cross-section and is overlapped at least a part thereof with the pixel electrode on the plain. Also, the auxiliary capacitance electrode is extended to the pad area from the active area of the array substrate and is connected to the common line.

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In the present case, the auxiliary capacitance electrode is **not** formed in the active area of the array substrate. For example, a N-1st gate line is commonly used as auxiliary capacitance electrode, and the N-1st gate line has an insulating layer interposed between with the Nth pixel electrode in the cross-section and is overlapped with the pixel electrode on the plain. The N-1st gate line is not connected to common electrode.

Therefore, the cited Takebayashi reference discloses connecting the auxiliary capacitance electrode of the array substrate with the common electrode of color filter substrate in the active area when the auxiliary capacitance electrode is formed. Also, auxiliary capacitance electrode is not extended to the pad area but placed respectively on each pixel.

To the contrary, the presently claimed invention discloses connecting the common line of array substrate with the common electrode of color filter substrate in the pad area regardless of auxiliary capacitance electrode. Therefore, the presently claimed invention differs from and is not taught or suggested by the cited Takebayashi reference.

The cited Takebayashi reference is in Japanese language, and the examiner as understood relies on the disclosure of this Japanese reference in rejecting the pending claims. If the examiner is to maintain the current opinion that the Takeyabshi allegedly teaches presently claimed invention, it is respectfully requested under MPEP 706.02 that the examiner provide the English translation of the Takeyabashi reference, which will clearly support his conclusion.

According to MPEP 706.02:

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If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the relying upon in support of the rejection. The record must also be clear as to whether the examiner is relying upon the abstract or the full text document to support a rejection.

The present office action fails to meet this requirement.

At least for the reasons above, the applicants consider that claims 1 and 3 are considered allowable and respectfully request withdrawal of the rejection. Accordingly, the applicants respectfully request reconsideration and an indication of allowable subject matter.

Or, the applicants respectfully request withdrawal of the present final rejection status when issuing another office action rejecting claims based on not-yet-cited prior art references in view of the fact that no claim has been amended in this paper. Otherwise, issuance of a Notice of allowance is respectfully requested.

For the reasons set forth above, the applicants respectfully submits that claims 1-5 pending in this application are in condition for allowance over the cited references. This amendment is considered to be responsive to all points raised in the Office Action.

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Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,



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